

REMARKS

Claims 1-31, and 33-72 remain pending after entry of this amendment. Claims 1, and 33-35 were amended herein. Claims 24-27, 36-41, and 65-68 were previously withdrawn, and claim 32 was previously cancelled. Favorable reconsideration is respectfully requested in light of the amendments and remarks submitted herein.

Applicant thanks the Examiner for the withdrawal of the rejections under 35 U.S.C. § 112, first paragraph, and under 35 U.S.C. §§ 102(a), 102(b), and 102(e) as anticipated by Benveniste et al. (FASEB J. March 17, vol. 12(4), pp. A412, 1998; Hollis et al. (U.S. Patent No. 5,653,939); and Gold et al. (U.S. Patent No. 6,242,246) respectively.

Claims 1-23 remain rejected under 35 U.S.C. § 112, second paragraph. Applicant respectfully traverses this rejection.

Claims 1-23, 28-31, 33-35, 42-64, and 69-72 remain rejected under 35 U.S.C. § 102(b) as anticipated by Benveniste et al. (J. Allergy Clin Immunol., Vol. 99(1), part 2, ppS175, 1997). Applicant respectfully traverses this rejection.

Claims 1-30, 33-35, 42-64, and 69-72 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of U.S. Patent No. 6,541,978. Applicant respectfully traverses this rejection.

Rejection under 35 U.S.C. § 112

Claims 1-23 remain rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner asserts that Applicant's arguments and amendments were not found persuasive because although the phrase "electromagnetic signal characteristic of a biological activity" is explained adequately in the specification, the specification cannot be read into the claims. Applicant respectfully disagrees with the Examiner regarding this point, because the definiteness of the claim language must be analyzed, not in a vacuum, but in light of, amongst other things, the content of the particular application disclosure (MPEP § 2173.02). However, in order to advance the prosecution of this case, Applicant has amended claim 1 to insert the phrase specified by the Examiner. In light of the amendment to claim 1, Applicant respectfully requests that this rejection be withdrawn.

68. (withdrawn) A device according to claim 65, characterised in that it comprises an enclosure (13) fitted with an electrical and magnetic shielding surrounding said reception means (47).

69. (previously presented) The process of claim 60, wherein said process is used for biological diagnostics in human or veterinary medicine.

70. (previously presented) The process of claim 61, wherein said process is used in bacteriological control in the pharmaceutical industry, the cosmetics industry, or the food production industry.

71. (previously presented) A process for detecting the presence of an electromagnetic signal characteristic of the biological activity of a substance corresponding to a ligand or a receptor of a ligand-receptor pair in an electromagnetic test signal comprising the implementation of an amplification process according to claim 42.

72. (previously presented) A detection process according to claim 71, wherein said electromagnetic signal is the electromagnetic signal radiated by an electromagnetic radiation source.

Rejection under 35 U.S.C. § 102

Claims 1-23, 28-31, 33-35, 42-64, and 69-72 remain rejected under 35 U.S.C. § 102(b) as anticipated by Benveniste et al. (J. Allergy Clin Immunol., Vol. 99(1), part 2, ppS175, 1997) ("Benveniste"). The Examiner asserts that Benveniste teaches the excitation signal having a frequency of 22,000 Hz, and further specifies that Benveniste teaches "digitized antigen signals or digitally amplified" and "EM radiation under 22 kHz can be digitized", which indicates that the biological element (antigen) had been exposed to EM prior to recording the amplified signals. Applicant respectfully disagrees with the Examiner's characterization of Benveniste.

Benveniste describes a method for recording signals from a transducer picking up electromagnetic fields emitted by biologically active substances. The recording method includes a biologically active substance, an acquisition transducer for the emitted magnetic field and producing an electrical signal output, an audio card carrying out the digital analog conversion of the signal thus produced, and a micro-computer recording the digital signal for one second. The audio card converts the analog electrical signal from the transducer by carrying out a sampling of this analog electrical signal with a resolution of 16 bits and a sampling frequency of 22 kHz. However, nothing in Benveniste discloses, or would lead one to believe that the method of Benveniste includes exposing the biological element to an EM excitation signal.

Applicant respectfully asserts that the Examiner is confusing the sampling method used in Benveniste with the excitation of the biological element according to the invention. Benveniste uses a frequency of 22 KHz as a sampling frequency for the electronic processing of the analog electrical signal output from the transducer. Applicant uses a frequency between about 20 Hz and 20 KHz as an excitation field. The sampling frequency of Benveniste is not an excitation field applied directly to the biological substance, and there is no interaction between an electromagnetic field and the biological element.

Therefore, Applicant respectfully asserts that therefore, Benveniste does not anticipate the currently pending claims at least because it does not include "placing said biologically active element such as said ligand and/or receptor in a zone subjected to an excitation field of an electrical, magnetic or electromagnetic type, wherein said excitation field is produced by an excitation signal having a frequency between about 20 Hz and about 20,000 Hz", as is recited in claim 1. Based on the above comments, Applicant respectfully requests that the Examiner withdraw the rejection of the claims under 35 U.S.C. § 102(b).

Obviousness-type Double Patenting Rejection

Claims 1-30, 33-35, 42-64, and 69-72 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of U.S. Patent No. 6,541,978. Although Applicant does not necessarily agree with this rejection, an executed terminal disclaimer has been provided herewith. In view thereof, Applicant respectfully requests that this rejection should be withdrawn.


Conclusion

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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